REMARKS

This Amendment is responsive to the Office Action dated November 21, 2002. Claims 1-20 are pending in the above-referenced patent application and subject to rejection.

A duplicate copy of Figure 10 and a Request for a One (1) month Extension of Time along with an appropriate check are enclosed.

Please charge any required fees to our Deposit Account No. 19-1995. A duplicate copy of this letter is enclosed for that purpose.

A marked-up version of the amended claims and a marked-up version of the amended paragraph(s) in the specification, are attached.

In the drawings, FIG. 10 was objected to because some of the numbers are unreadable. Enclosed please find a more readable copy of FIG. 10 with enhanced numbers, and a marked-up version of FIG. 10 showing the enhanced numbers. Except for enhancements to the numbers to make them more readable, no changes have been made to FIG. 10. Therefore, it is respectfully submitted that the objection should be withdrawn.

The specification, page 28, line 24-25, was objected to, wherein the Patent Office suggested changing "A proxy 117" to "A bridge 117". The specification has been amended as suggested by the Patent Office. Therefore, it is respectfully submitted that the objection should be withdrawn.

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The specification, page 28, line 24-25, was objected to, wherein the Patent Office suggested changing "A proxy 117" to "A bridge 117". The specification has been amended as suggested by the Patent Office. Therefore, it is respectfully submitted that the objection should be withdrawn.

Claims 12-20 were objected to as having dependency problems. The claims have been amended as suggested by the Patent Office. Therefore, it is respectfully submitted that the objections should be withdrawn.

Claims 1-7, 9-17 and 19-20 were rejected under 35 USC 102(e) as being anticipated by Lea (USPN 6,052,750). Claims 8 and 18 were rejected under 35 USC 103(a) as being unpatentable over Lea (USPN 6,052,750) in view of Venkatraman et al., USPN 5,956,487 (hereinafter "Venkatraman").

Rejections under 35 USC 102(e)

Rejection of Claims 1-7, 9-17 and 19-20 under 35 USC 102(e) as being anticipated by Lea is respectfully traversed because Lea does not disclose all of the limitations of the claims.

For example, **as per Claim 1**, Lea does not disclose a first network and a second network that are connected by an interface device, as claimed herein. Lea does not disclose a method for "providing user interfaces in a first network including first devices interconnected via a communication medium and at least one interface device connecting said first network to at least a second network having interconnected second devices, the user interfaces for controlling the devices that are currently connected to the first network and devices that are currently connected to the second network", as required by Claim 1.

Further, Lea does not disclose:

"obtaining information from said first devices currently connected to the first network, said information including device information";

"obtaining information from the interface device about the second devices connected to the second network"; and

"generating a user interface description in one or more of said first devices based

at least on the obtained information, the user interface description in each first device including: (1) at least one reference associated with the device information of each of said first devices, and (2) at least one reference associated with the device information of each of said second devices"; all as required by Claim 1.

In the Office Action, page 3, paragraph 5, the Patent Office relies on Lea, col. 6, lines 38-46; figs. 17A-B, col. 26, lines 34-67; col. 6, line 56 to col. 7 line 25 and col. 24, lines 56-67, for the proposition that Lea teaches all of the aforementioned limitations of the present invention as required by Claim 1. However, for the following reasons, it is respectfully submitted that the Patent Office's interpretation and characterization of Lea are inconsistent and lacking.

For example, on col. 6, lines 38-46 (relied upon by the Patent Office), Lea states:

> "It should be noted that the home AV network (hereafter HAVI network) of the present invention provides support to accommodate future appliances and protocols through a write-once, run-everywhere common language. In accordance with the present invention, each appliance includes within it self-describing information concerning the user interface and the device control that can be used by an external controller. This information is specified as programs in the common language."

As such, Lea considers the HAVI network (e.g., networks 10a or 10b in FIGS. 1A or 1B, respectively; and network 1750 in FIG. 17B) to be a first network including first devices, as corroborated in col. 7, lines 48-67, and col. 16, lines 59-63.

Then, on col. 26, lines 34-67 (relied upon by the Patent Office), Lea states:

> "FIG. 17A shows a flow chart of a process 1700 in accordance with one embodiment of the present invention. Process 1700 shows the steps of a method of controlling devices within a home audio/video network using an application

program from an external service provider. In step 1702, an application program is originated by a service provider (e.g., via cable television, internet web site, etc.). In step 1703, the service provider communicates the application program from the service provider to an intelligent receiver/decoder device of the HAVI network over a logical channel. The application is subsequently instantiated within a computer readable memory unit of the intelligent receiver/decoder. Referring still to FIG. 17A, in step 1704, the application program queries the HAVI registry of the device (e.g., FAV device) to locate DCMs on the network and selects a respective DCM from the registry. In step 1705, the down loaded application determines a communications point information from the selected DCM. In step 1706, the application controls a respective device of the HAVI network by communicating with the respective device using the communication point information. In step 1707, if the application needs to control another device, steps 1704 through 1706 are repeated. If the application does not need to control another device, processes 1700 ends in step 1708.

FIG. 17B shows a diagram of a HAVI network 1750 with the service provider 1720 in accordance with process 1700 of FIG. 17A. As described above, the application program is downloaded from the service provider 1720 to the HAVI network 1750. The application is instantiated on the processor 601 and memory 602 of the intelligent device (e.g., set top box 301). HAVI network 1750 also includes four HAVI devices, device 0 through device 3 (e.g., television, DVTR, etc.)."

As such, Lea is describing a process 1700 (shown in FIG. 17A) for devices within the first network 1750, using an application program from an external service provider 1720 (col. 26, lines 34-38). Therefore, Lea does not disclose:

"obtaining information from said first devices currently connected to the first

network, said information including device information", and

"obtaining information from the interface device about the second devices connected to the second network", as required by Claim 1.

Even if according to the Patent Office's lacking interpretation, the ISP 1720 in fig. 17B of Lea could be construed as a second network including second devices (See Office Action, page 4, second paragraph), there is no teaching in Lea of "obtaining information from the interface device about the second devices connected to the second network"; as required by Claim 1. If the Patent Office disagrees, Applicants respectfully request specific reference to such disclosure in Lea.

Then on col. 6, line 56 to col. 7 line 25 and col. 24, lines 56-67 (relied upon by the Patent Office), Lea states:

> "For example, in one embodiment of the present invention, an intelligent television in the family room of a user's home might function as the controller for a number of interconnected appliances. Each of the controlled appliances would have self describing data and possibly some associated control code. When these appliances are first connected, the controller obtains the user interface and the control program for the appliance. An icon representing the appliance may then appear on the television screen, and manipulating the icon may cause elements of the control program to actuate the represented appliance or appliances in prescribed ways. The exception to this model are legacy devices which will have neither self describing data or control code....
>
> It should be noted that the HAVI network of the present invention supports "Plug and Play" consumer appliances are easy to install, and provide a significant portion of their value to the consumer without any action on the user's part, beyond physically connecting the cables. This is in distinction to existing

appliances that require configuration to provide some major portion of their functionality. The goal is to offer `hot` plug and play (not requiring the user to switch off appliances) where the connection method supports it safely and reliably.

In accordance with the present invention, an appliance configures itself, and integrates into a system-wide "look and feel" user interface, without user intervention. Low-level communication services provide notification when a new appliance is identified on the AV network. While there will often be settings the user may change to suit his or her preferences, the appliance does not require the user to do so in order to offer basic functionality....

For example, FIGS. 12A and 12B show an exemplary UI display (e.g., on a television screen) for such a device(e.g., the camcorder). FIG. 12A shows a text menu display, where the user is presented with the various controls that can be modified using the control names and control values. For buttons, the user can select them (which equates to pushing a button). FIG. 12B shows a "next level" UI display for the camcorder. Here, the user selected the main panel from the menu in FIG. 12A, and the display presents controls based on their grouping information. In the present embodiment, group names are used on a tabbed interface to allow the user to navigate between groups within the selected panel."

Therefore, there is no teaching in Lea of: "generating a user interface description in one or more of said first devices based at least on the obtained information, the user interface description in each first device including: (1) at least one reference associated with the device information of each of said first devices, and (2) at least one reference associated with the device information of each of said second devices", as required by Claim 1. Even if according to the Patent Office's interpretation, the ISP 1720 in fig. 17B of Lea could be construed as a second network including second devices, such limitations of Claim 1 are not disclosed in Lea. If the

Patent Office disagrees, Applicants respectfully request specific reference to such disclosure in Lea.

Indeed, by contrast, Lea is directed to a method and system for ensuring future upgradability and expandabiliy of devices in a home audio video network. The system generates a default control module (DCM) for a first device coupled to the network by using a second device coupled to the network. The default control module is configured to ensure at least a minimum degree of interoperability between the first device and the second device. The second device access the first device via the default control module, wherein the default control module enables the first device to respond to a default set of commands from the second device. When an updated control module for the first device is received, the default control module is replaced with the updated control module by unlinking the default control module and linking the updated control module. The second device subsequently accesses the first device via the updated control module, wherein the updated control module enables the first device to respond to an updated set of commands from the second device. (Abstract).

Therefore, it is respectfully submitted that for at least the above reasons rejection of Claim 1, and all claims dependent therefrom, should be withdrawn.

As per Claim 2, Lea does not disclose that "said interface device includes information about the second devices", as required by Claim 2. Further, as discussed above in reference to Lea figs. 17A-B and col. 26, lines 34-67, even if according to the Patent Office's interpretation Lea's ISP 1720 is the second network including second devices and Lea's intelligent device 301 in fig. 17B is an interface device, according to Lea the device 301 (i.e., DCM registry 706) does not include information about the second devices in the second network ISP 1720. If the Patent Office disagrees, Applicants respectfully request specific reference to such disclosure in Lea. Therefore, it is respectfully submitted that for at least the above reasons rejection of Claim 2, and

all claims dependent therefrom, should be withdrawn.

As per Claim 3, for at least the above reasons in relation to Claims 1-2, Lea does not disclose: "the first network comprises a 1394 bus, and the second network comprises a non-1394 bus", as required by Claim 3. Further, Lea does not mention that the ISP 1720 is a non-1934 network. Therefore, it is respectfully submitted that for at least the above reasons rejection of Claim 3, and all claims dependent therefrom, should be withdrawn.

As per Claim 4, for at least the above reasons in relation to Claims 1-2, Lea does not disclose that: "the interface device includes an address extension table for the second devices, and wherein step (b) further includes the steps of using the address extension table to access said second devices", as required by Claim 4. Further, in Col. 11, lines 48-67 (relied upon by the Patent Office), Lea states:

> "Set-top-box 301 of FIG. 6, in addition to having a video/audio receiver (decoder) unit 606 and MPEG unit 607 also includes an address/data bus 600 for communicating information, one or more central processors 601 coupled with the bus for processing information and instructions, a volatile memory 602 (e.g., random access memory RAM) coupled with the bus 600 for storing information and instructions for the central processor 601 and a non-volatile memory 603 (e.g., read only memory ROM) coupled with the bus 600 for storing static information and instructions for the processor 601. Set-top-box 301 can also optionally include a data storage device 604 ("disk subsystem") such as a magnetic or optical disk and disk drive coupled with the bus 600 for storing information and instructions. Also included in the set-top-box 301 is a bus interface unit 608 for interfacing with the local bus 30 (e.g., an IEEE 1394 serial bus). Set-top-box 301 can operate under a variety of different operating systems

(e.g., Windows operating system, DOS operating system, Macintosh O/S), but in the present embodiment the Aperios operating system is used."

Even if according to the Patent Office's interpretation, the box 301 of Lea is an interface device and the ISP 1702 is a second network including second devices, there is no mention in Lea that box 301: "includes an address extension table for the second devices", nor does Lea mention "using the address extension table to access said second devices", as required by Claim 4. Therefore, it is respectfully submitted that for at least the above reasons rejection of Claim 4, and all claims dependent therefrom, should be withdrawn.

As per Claim 5, clearly Lea does not teach or suggest that "the interface device comprises a bridge device", as required by Claim 5. The Patent Office assumes such teaching as being inherent in Lea's box 301 of FIG. 17B, without any corroborating reasoning. It is respectfully submitted that a bridge device, as claimed herein, is not shown in Lea's FIG. 17B nor mentioned in Lea. In contrast to the Patent Office's assumption, in FIG. 6 of Lea the box 301 is shown as including a bus interface 608, and not a bridge according to the present invention. Further, Lea states in col. 11, lines 61-64, that the bus interface 608 is for interfacing with the local bus 30 (e.g., an IEEE 1394 serial bus). Therefore, clearly Lea's bus interface 608 is not a bridge as claimed herein for interfacing a second network, wherein the second network can comprise e.g. a non-1394 bus (e.g., Claim 3). Therefore, it is respectfully submitted that for at least the above reasons rejection of Claim 5, and all claims dependent therefrom, should be withdrawn.

As per Claim 6, for at least the above reasons in relation to Claims 1, 2 and 4, Lea does not teach "displaying one or more user interfaces each based on one of said one or more user interface descriptions, on one or more devices connected to the first network capable of displaying a user interface, for user control of said first and second devices", as required by

Claim 6. Further, even if according to the Patent Office's interpretation, the ISP 1702 in Lea is a second network including second devices, no device in Lea's first network (HAVI 1750 in FIG. 17B) provides a user interface to control any device in the ISP 1720. Therefore, it is respectfully submitted that for at least the above reasons rejection of Claim 6, and all claims dependent therefrom, should be withdrawn.

As per Claim 7, for at least the above reasons in relation to Claims 1, 2, 4 and 6, Lea does not teach displaying each user interface by "using each reference in the corresponding user interface description to access the associated information in each device; generating the user interface including device data corresponding to each device using the accessed information in each device; and displaying the user interface on said device capable of displaying a user interface", as required by Claim 7. Further, even if according to the Patent Office's interpretation, the ISP 1702 in Lea is a second network including second devices, Lea does not disclose: using each reference in the corresponding user interface description to access the associated information in each second device in the second network; generating the user interface including device data corresponding to each second device using the accessed information in each second device; and displaying the user interface on said device in the first network capable of displaying a user interface. Therefore, it is respectfully submitted that for at least the above reasons rejection of Claim 7, and all claims dependent therefrom, should be withdrawn.

As per Claim 9, for at least the above reasons in relation to Claims 1, 2, 4, 6 and 7, Lea does not teach that "the device information in each device includes a user control interface description for user interaction with the device", as required by Claim 9. Further, **as per claim 10**, Lea does not disclose "generating each user interface description such that each reference in that user interface description is to at least the user control interface description in each corresponding device", as required by Claim 10. Further, even if according to the Patent Office's interpretation, the ISP 1702 in Lea is a second network including second devices, Lea does not

disclose that the device information in each second device in the second network includes a user control interface description for user interaction with the second device (Claim 9), nor does Lea disclose generating each user interface description such that each reference in that user interface description is to at least the user control interface description in each corresponding device in the second network (Claim 10). Therefore, it is respectfully submitted that for at least the above reasons rejection of Claims 9-10, and all claims dependent therefrom, should be withdrawn.

Further, for the above reasons, rejection of Claims 11-17 and 19-20 under 35 USC 102(e) as being anticipated by Lea is respectfully traversed. Therefore, it is respectfully submitted that that rejection of Claims 11-17 and 19-20 should be withdrawn.

Rejections under 35 USC 103(a)

Rejection of Claims 8 and 18 under 35 USC 103(a) as being unpatentable over Lea in view of Venkatraman is respectfully traversed because the claims include limitations not taught or suggested by the references alone, or in combination. No prime facie case of obviousness has been established.

Argument

Networks that allow control of devices connected to one network only, do not provide the ability to provide user interface and control of devices connected to additional networks as well. As such, there has been a need for providing the ability for discovering one or more devices connected to a first network and devices connected to a second different network, and to independently generate different user interface representations of the devices connected to the first and second network for user command and control. The present invention provides a method and system for providing user interfaces in a first network including first devices interconnected via a communication medium and at least one interface device connecting said first network to at least a second network having interconnected second devices, the user

interfaces for controlling the devices that are currently connected to the first network and devices that are currently connected to the second network.

As per Claim 8, as the Patent Office also states, Lea does not disclose generating a user interface description by "associating a hyper-text link with the device information of one or more of said first and second devices", as required by Claim 8.

As aforementioned, Lea is directed to a method and system for ensuring future upgradability and expandabiliy of devices in a home audio video network. The system generates a default control module (DCM) for a first device coupled to the network by using a second device coupled to the network. The default control module is configured to ensure at least a minimum degree of interoperability between the first device and the second device. The second device access the first device via the default control module, wherein the default control module enables the first device to respond to a default set of commands from the second device. When an updated control module for the first device is received, the default control module is replaced with the updated control module by unlinking the default control module and linking the updated control module. The second device subsequently accesses the first device via the updated control module, wherein the updated control module enables the first device to respond to an updated set of commands from the second device. (Abstract).

Venkatraman is directed to a system wherein Web access functionality is embedded in a device to enable accessible user interface functions for the device. A web server in the device provides access to the user interface functions for the device through a device web page. A network interface in the device enables access to the web page by a web browser such that a user of the web browser accesses the user interface functions for the device through the web page. (Abstract).

One of ordinary skill in the art would not look to combine Lea and Venkatraman. Nor is there a motivation or suggestion in either reference to do so, to solve device command and control issues in two or more connected networks according to the present invention. Even if Lea and Venkatraman are combined as suggested by the Patent Office, the result does not teach or suggest the claimed invention. As discussed above in relation to Claims 1, 2, 4, 6, 7, 9 and 10, Lea is oblivious to providing control of devices in a first second network and a second network via a user interface in a first network. Therefore, for at least the above reasons, it is respectfully submitted that the rejection of Claim 8 be withdrawn. Further, for similar reasons, it is respectfully submitted that for at least the above reasons, rejection of Claim 18 be withdrawn.

Conclusion

For these an other reasons, it is respectfully submitted that the rejection of the claims should be withdrawn, and all of the claims be allowed. Accordingly, reexamination, reconsideration and allowance of all the claims are respectfully requested.

Respectfully submitted,
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I hereby certify that this correspondence is being deposited with the United States Postal Service first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231 on 3/12/05

Evelyn Menjivar
(Type or print name of person mailing paper)

(Signature of person mailing paper)

Marked-Up Version of Amended Paragraphs in the Specification

Please amend the paragraph beginning on page 28, line 23 and ending on page 29 line 9, as follows:

In this embodiment, the network 300 can be connected to an external network 119 of dissimilar type (e.g., Ethernet) to the 1394 Serial bus, via a bus 121. [A proxy 117] A bridge 117 is used to interface the two dissimilar medium types. For communication between the addressing scheme of the external network 119, and the addressing scheme of the network 300, the bridge 117 comprises a Network Address Translation (NAT) boundary. This technique can be utilized for company LAN's and is a 'divide and conquer' approach to the complex problem of satisfying various network's differing IP address requirements and prevents 'running out of IPV4' addresses. The external network can include e.g. CABLE-TV network 115 via Ethernet to the telephone e.g. ADSL), providing broadband connection to the Internet and WWW. The Ethernet 119 provides the bridge function to the external network. The bridge 117 or Ethernet 119 may provide the NAT address conversion function. If the Ethernet is to provide local private (to home only) addressing (e.g. as defined by then IETF standard RFC 1918) then the NAT function is in the Ethernet 119. Existing cable modems are set up with a global address and also Internet global address for the PC on the Ethernet (in this case the NAT is in the bridge 117).

Marked-Up Copy Of The Amended Claims

Please amend the claims as follows:

11. (Amended) A network system for performing a service, comprising:

a first network including first devices interconnected via a communication medium and at least one interface device connecting said first network to at least a second network having interconnected second devices;

an agent in each of one or more first devices [adapter] adapted for:

obtaining information from said first devices currently connected to the first network, said information including device information;

obtaining information from the interface device about the second devices connected to the second network;

generating a user interface description in one or more of said first devices based at least on the obtained information, the user interface description in each first device including: (1) at least one reference associated with the device information of each of said first devices, and (2) at least one reference associated with the device information of each of said second devices.

12. (Amended) The system of claim [1] 11, wherein said interface device includes information about the second devices.

13. (Amended) The system of claim [1] 11, wherein the first network comprises a 1394 bus, and the second network comprises a non-1394 bus.

14. (Amended) The system of claim [3] 13, wherein the interface device includes an address extension table for the second devices, and wherein each agent is further adapted for using the address extension table to access said second devices.

15. (Amended) The system of claim [1] 11, wherein the interface device comprises a bridge device.

16. (Amended) The system of claim [1] 11 wherein the agent is further adapted for displaying one or more user interfaces each based on one of said one or more user interface descriptions, on one or more devices connected to the first network capable of displaying a user interface, for user control of said first and second devices.

17. (Amended) The system of claim [6] 16, wherein the agent is further adapted for displaying each user interface by:

using each reference in the corresponding user interface description to access the associated information in each device;

generating the user interface including device data corresponding to each device using the accessed information in each device; and

displaying the user interface on said device capable of displaying a user interface.

18. (Amended) The system of claim [1] 11, wherein the agent is further adapted for generating each user interface description by: associating a hyper-text link with the device information of one or more of said first and second devices.

19. (Amended) The system of claim [1] 11, wherein the device information in each device includes a user control interface description for user interaction with the device.

20. (Amended) The system of claim [9] 19, wherein the agent is further adapted for generating each user interface description such that each reference in that user interface description is to at least the user control interface description in each corresponding device.

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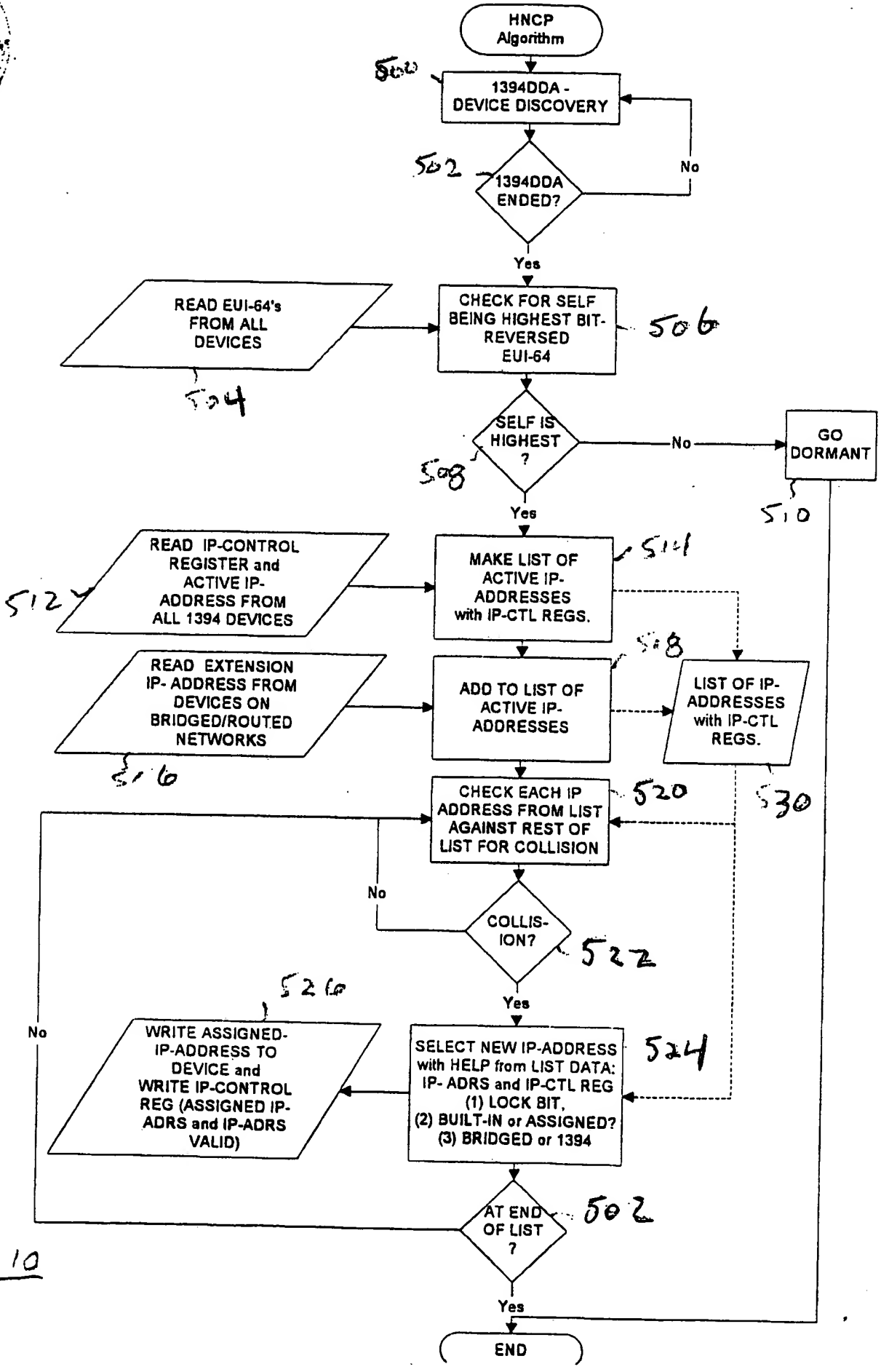

FIG. 10